

REMARKS

Claims 8, 12 and 33 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Matsuyama et al. Applicants respectfully traverse this rejection.

In Matsuyama et al., as shown in FIG. 2 to FIG. 3, the protruding structure provided near the pixel electrode controls the orientation direction, and the azimuthal direction of the inclination at the time of voltage application is perpendicular to the longitudinal direction of the protruding structure, as shown below in FIG. (a). This protruding structure is the most significant factor in determining the orientation direction of the display area. This merely corresponds to the main protrusion of an MVA structure as known in the art (structure in 22 in FIG. 4 of the present invention).

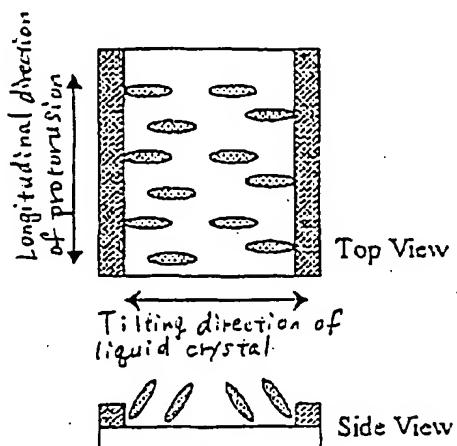


Fig.(a) Orientation Control in
Matsuyama et al.

In the present invention, the first orientation control element locally provided near the edge of the pixel electrode is formed for the purpose of counteracting the orientation regulating force defined by the slanting electric field occurring at the edge of the pixel

electrode to produce a state equivalent to the state without any occurrence of the slanting electric field. The first orientation control element itself does not determine the orientation direction. As a result of this counteraction, it becomes possible for the orientation regulating force defined by the aforesaid main protrusion to act over the entire display area. This causes the orientation direction of the liquid crystal molecules to be perpendicular to the longitudinal direction of the main protrusion. Moreover, the first orientation control element does not give influence to the liquid crystal molecules of the entire pixel area. Only a local area near the edge of the pixel electrode is given its effect.

Claims 8-10, 12 and 33 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Takeda et al. Applicants respectfully traverse this rejection.

In Takeda et al., the plurality of slits S shown in FIG.7 are not intended for “counteracting the orientation regulating force,” defined by the slanting electric field occurring at the edge of the pixel electrode to produce a state equivalent to the state without any occurrence of the slanting electric field. As shown in FIG. 10, the slits are formed in the entire pixel area in order to stabilize the orientation direction on the slits. Further, these slits are the main slits of an MVA structure and are intended for tilting the liquid crystal molecules of the display area in the perpendicular direction to the longitudinal direction of the slits.

The first orientation control element of the present invention is formed in a local area near the edge of the pixel electrode, and is intended for giving orientation

regulation in a horizontal direction not in a perpendicular direction relative to the longitudinal direction, thereby counteracting the orientation regulating force defined by the slanting electric field.

Claim 11 stands rejected under 35 U.S.C. § 103(a) as unpatentable over Matsuyama et al. in view of Numato et al. Applicants respectfully traverse this rejection for reasons given with respect to claim 8, from which claim 11 depends, and because of the additional features recited in claim 11.

For all of the above reasons, Applicants request reconsideration and allowance of the claimed invention. The Examiner should contact Applicants' undersigned attorney if a telephone conference would expedite prosecution.

Respectfully submitted,

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